

General

Guideline Title

Management of small renal masses: American Society of Clinical Oncology clinical practice guideline.

Bibliographic Source(s)

Finelli A, Ismaila N, Bro B, Durack J, Eggener S, Evans A, Gill I, Graham D, Huang W, Jewett MA, Latcha S, Lowrance W, Rosner M, Shayegan B, Thompson RH, Uzzo R, Russo P. Management of small renal masses: American Society of Clinical Oncology clinical practice guideline. *J Clin Oncol*. 2017 Feb 20;35(6):668-80. [154 references] [PubMed](#)

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

Definitions for the rating of evidence (High, Intermediate, Low, Insufficient); types of recommendations (Evidence based, Formal consensus, Informal consensus, No recommendation); and strength of recommendations (Strong, Moderate, Weak) are provided at the end of the "Major Recommendations" field.

Clinical Question 1

For patients who were diagnosed with a small renal mass (SRM), when is renal tumor biopsy (RTB) indicated? What is the contemporary accuracy and complication profile of RTB?

Recommendation 1.0: On the basis of tumor-specific findings and competing risks of mortality, all patients with an SRM should be considered for RTB when the results may alter management (Type: evidence based; Evidence quality: intermediate; Strength of recommendation: strong).

Clinical Question 2

In patients with an SRM, is there an age limit at which active surveillance is a better option than surgical resection or thermal ablation? Is there an anticipated life expectancy for which active surveillance is a better option than surgical intervention or thermal ablation? Are patients with significant and active medical comorbidities—that is, chronic kidney disease (CKD), congestive heart failure, coronary artery disease, and chronic obstructive pulmonary disease—better treated with active surveillance than surgical intervention or ablation?

Recommendation 2.0: Active surveillance should be an initial management option for patients who have significant comorbidities and limited life expectancy (Type: evidence based; Evidence quality: intermediate; Strength of recommendation: moderate).

Qualifying statement: absolute indication: high risk for anesthesia and intervention or life expectancy <5 years; relative indication: significant risk of end-stage renal disease (ESRD) if treated, SRM (<1 cm), or life expectancy <10 years.

Clinical Question 3

In patients with an SRM, what are the optimal indications for undergoing partial nephrectomy (PN), radical nephrectomy, or thermal ablation? What is the impact of these procedures on renal function?

Recommendation 3.1: PN for SRMs is the standard treatment that should be offered to all patients in whom an intervention is indicated and who possess a tumor that is amenable to this approach (Type: evidence based; Evidence quality: intermediate; Strength of recommendation: strong).

Recommendation 3.2: Percutaneous thermal ablation should be considered an option for patients that possess tumors such that complete ablation will be achieved. A biopsy should be obtained before or at the time of ablation (Type: evidence based; Evidence quality: intermediate; Strength of recommendation: moderate).

Recommendation 3.3: Radical nephrectomy for SRMs should only be reserved for patients who possess a tumor of significant complexity that is not amenable to PN or for whom PN may result in unacceptable morbidity even when performed at centers with expertise. Referral to a surgeon and a center with experience in PN should be considered (Type: evidence based; Evidence quality: intermediate; Strength of recommendation: strong).

Recommendation 3.4: Referral to a nephrologist should be considered for patients with CKD (estimated glomerular filtration rate [eGFR] <45 mL/min/1.73 m²) or progressive CKD after treatment, especially if associated with proteinuria (Type: evidence based; Evidence quality: intermediate; Strength of recommendation: moderate).

Definitions

Guide for Rating Strength of Evidence

Rating for Strength of Evidence	Definition
High	High confidence that the available evidence reflects the true magnitude and direction of the net effect (i.e., balance of benefits versus harms) and that further research is very unlikely to change either the magnitude or direction of this net effect.
Intermediate	Moderate confidence that the available evidence reflects the true magnitude and direction of the net effect. Further research is unlikely to alter the direction of the net effect; however, it might alter the magnitude of the net effect.
Low	Low confidence that the available evidence reflects the true magnitude and direction of the net effect. Further research may change either the magnitude and/or direction this net effect.
Insufficient	Evidence is insufficient to discern the true magnitude and direction of the net effect. Further research may better inform the topic. The use of the consensus opinion of experts is reasonable to inform outcomes related to the topic.

Guide for Types of Recommendations

Type of Recommendation	Definition
Evidence based	There was sufficient evidence from published studies to inform a recommendation to guide clinical practice.
Formal consensus	The available evidence was deemed insufficient to inform a recommendation to guide clinical practice. Therefore, the Expert Panel used a formal consensus process to reach this recommendation, which is considered the best current guidance for practice. The Panel may choose to provide a rating for the strength of the recommendation (i.e., "strong," "moderate," or "weak"). The results of the formal consensus process are summarized in the guideline and reported in the Data Supplement (see the "Availability of Companion Documents" field).
Informal Consensus	The available evidence was deemed insufficient to inform a recommendation to guide clinical practice. The recommendation is considered the best current guidance for practice, based on informal consensus of the Expert Panel. The Panel agreed that a formal consensus process was not necessary for reasons described in the literature review and discussion. The Panel may choose to provide a rating for the strength of the recommendation (i.e., "strong," "moderate," or "weak").
No	There is insufficient evidence, confidence, or agreement to provide a recommendation to guide clinical practice at this

Recommendation Type or Recommendation	Definition
	time. The Panel deemed the available evidence as insufficient and concluded it was unlikely that a formal consensus process would achieve the level of agreement needed for a recommendation.

Guide for Strength of Recommendations

Rating for Strength of Recommendation	Definition
Strong	There is high confidence that the recommendation reflects best practice. This is based on (1) strong evidence for a true net effect (e.g., benefits exceed harms); (2) consistent results, with no or minor exceptions; (3) minor or no concerns about study quality; and/or (4) the extent of panelists' agreement. Other compelling considerations (discussed in the guideline's literature review and analyses) may also warrant a strong recommendation.
Moderate	There is moderate confidence that the recommendation reflects best practice. This is based on (1) good evidence for a true net effect (e.g., benefits exceed harms); (2) consistent results, with minor and/or few exceptions; (3) minor and/or few concerns about study quality; and/or (4) the extent of panelists' agreement. Other compelling considerations (discussed in the guideline's literature review and analyses) may also warrant a moderate recommendation.
Weak	There is some confidence that the recommendation offers the best current guidance for practice. This is based on (1) limited evidence for a true net effect (e.g., benefits exceed harms); (2) consistent results, but with important exceptions; (3) concerns about study quality; and/or (4) the extent of panelists' agreement. Other considerations (discussed in the guideline's literature review and analyses) may also warrant a weak recommendation.

Clinical Algorithm(s)

An algorithm titled "Management of Small Renal Masses" is available from the [American Society of Clinical Oncology \(ASCO\) Web site](#)
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Scope

Disease/Condition(s)

Small renal mass

Guideline Category

Evaluation

Management

Treatment

Clinical Specialty

Internal Medicine

Nephrology

Oncology

Pathology

Radiology

Urology

Intended Users

Advanced Practice Nurses

Patients

Physician Assistants

Physicians

Guideline Objective(s)

To provide evidence-based recommendations for practicing physicians and other health care providers concerning the management of clinically localized small renal mass (SRM)

Target Population

Patients with a small renal mass (SRM)

Interventions and Practices Considered

1. Renal tumor biopsy
2. Active surveillance
3. Surgical intervention
 - Partial nephrectomy
 - Radical nephrectomy
4. Percutaneous thermal ablation
5. Referral to nephrologist for patients with chronic kidney disease (CKD)

Major Outcomes Considered

- Overall survival (OS)
- Cancer-specific survival
- Disease-free survival
- Peri- and postoperative complications
- Tumor growth rate
- Diagnostic accuracy

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

The Expert Panel developed the recommendations by using evidence that was identified through online searches of Medline (PubMed) and the Cochrane Collaboration Library electronic databases (\pm meeting abstracts) from January 2000 through September 2015. This search was complemented by panel members' additional suggestions of articles that were missing from the original searches. Data Supplement 3 (see the "Availability of Companion Documents" field) includes full details on the search string. Articles were selected for inclusion in the systematic review of the evidence on the basis of the following criteria:

- Population: Patients with clinically localized small renal mass (SRM).
- Publications that reported rigorously conducted systematic reviews (with or without meta-analyses), randomized clinical trials (RCTs), and prospective or retrospective observational studies.

Articles were excluded from the systematic review if they were meeting abstracts that were not subsequently published in peer-reviewed journals; editorials, commentaries, letters, news articles, case reports, or narrative reviews; or published in a non-English language. Further details on the systematic review can be found in the Methodology Supplement (see the "Availability of Companion Documents" field).

Number of Source Documents

A total of 83 studies met eligibility criteria and form the evidentiary basis for the guideline recommendations. Identified trials included 20 systematic reviews—17 on different SRM treatment modalities and three on RTB—and 63 primary studies. Seven of the primary studies were retrospective studies on the treatment of elderly patients with SRMs. There were six retrospective studies on surveillance; nine retrospective studies on renal tumor biopsy; and three RCTS, two prospective comparative trials, and 27 retrospective studies on different surgical interventions for SRMs. In addition, nine retrospective studies evaluated the impact of these interventions on renal function.

See Data Supplement 2 (see the "Availability of Companion Documents" field) for a Quality of Reporting of Meta-analyses (QUOROM) Diagram showing exclusions and inclusions of publications identified for the systematic review.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Guide for Rating Strength of Evidence

Rating for Strength of Evidence	Definition
High	High confidence that the available evidence reflects the true magnitude and direction of the net effect (i.e., balance of benefits versus harms) and that further research is very unlikely to change either the magnitude or direction of this net effect.
Intermediate	Moderate confidence that the available evidence reflects the true magnitude and direction of the net effect. Further research is unlikely to alter the direction of the net effect; however, it might alter the magnitude of the net effect.
Low	Low confidence that the available evidence reflects the true magnitude and direction of the net effect. Further research may change either the magnitude and/or direction this net effect.
Insufficient	Evidence is insufficient to discern the true magnitude and direction of the net effect. Further research may better inform the topic. The use of the consensus opinion of experts is reasonable to inform outcomes related to the topic.

Guide for Rating of Potential for Bias

Rating of Potential for Bias	Definitions for Rating Potential for Risk of Bias in Randomized Controlled Trials
Low risk	No major features in the study that risk biased results, and none of the limitations are thought to decrease the validity of the conclusions. The study avoids problems such as failure to apply true randomization, selection of a population unrepresentative of the target patients, high dropout rates, and no intention-to-treat analysis; and key study features are described clearly (including the population, setting, interventions, comparison groups, measurement of outcomes, and reasons for dropouts).
Intermediate	The study is susceptible to some bias, but flaws are not sufficient to invalidate the results. Enough of the items introduce some uncertainty about the validity of the conclusions. The study does not meet all the criteria required for a rating of good quality, but no flaw is likely to cause major bias. The study may be missing information, making it difficult to assess limitations and potential problems.

High risk Potential for Bias	Definitions for Rating Potential for Risk of Bias in Randomized Controlled Trials There are significant flaws that imply biases of various types that may invalidate the results. Several of the items introduce serious uncertainty about the validity of the conclusions. The study has serious errors in design, analysis, or reporting; large amounts of missing information; or discrepancies in reporting.
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Methods Used to Analyze the Evidence

- Review of Published Meta-Analyses
- Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Data Extraction

Literature search results were reviewed and deemed appropriate for full text review by two American Society of Clinical Oncology (ASCO) staff reviewers in consultation with the Expert Panel Co-Chairs. Data were extracted by two staff reviewers and subsequently checked for accuracy through an audit of the data by another ASCO staff member. Disagreements were resolved through discussion and consultation with the Co-Chairs if necessary. Evidence tables are provided in the manuscript and/or in Data Supplement 1 (see the "Availability of Companion Documents" field).

Study Quality Assessment

Study quality was formally assessed for the studies identified. Design aspects related to the individual study quality were assessed by one reviewer and included factors such as blinding, allocation concealment, placebo control, intention to treat, funding sources, etc. The risk of bias is assessed as "low," "intermediate," or "high" for most of the identified evidence.

Methods Used to Formulate the Recommendations

- Expert Consensus
- Informal Consensus

Description of Methods Used to Formulate the Recommendations

Expert Panel Composition

The American Society of Clinical Oncology (ASCO) Clinical Practice Guidelines Committee (CPGC) convened an Expert Panel with multidisciplinary representation in medical oncology, nephrology, nuclear and radiation oncology, surgical oncology, pathology, community oncology, patient/advocacy representation, and guideline implementation. The Expert Panel was led by two Co-Chairs who had primary responsibility for the development and timely completion of the guideline.

Guideline Development Process

An Expert Panel with multidisciplinary representation met via teleconference and/or webinar and corresponded through e-mail. On the basis of the consideration of the evidence, the authors were asked to contribute to the development of the guideline, provide critical review, and finalize guideline recommendations. Members of the Expert Panel were responsible for reviewing and approving the penultimate version of the guideline.

Guideline recommendations were crafted, in part, by using the GuideLines Into DEcision Support (GLIDES) methodology and accompanying BRIDGE-Wiz software™. This method helps Guideline Expert Panels systematically develop clear, translatable, and implementable recommendations using natural language, based on the evidence and assessment of its quality to increase usability for end users. The process incorporates distilling the actions involved, identifying who will carry them out, to whom, under what circumstances, and clarifying if and how end users can carry out the actions consistently. This process helps the Expert Panel focus the discussion, avoid using unnecessary and/or ambiguous language, and clearly state its intentions.

In addition, a guideline implementability review was conducted. On the basis of the implementability review, revisions were made to the draft to clarify recommended actions for clinical practice. Ratings for the type and strength of recommendation, evidence, and potential bias are provided with each recommendation.

In some selected cases in which evidence is lacking but there was a high level of agreement among Expert Panel members, informal consensus is used (as noted in the "Major Recommendations" field).

Rating Scheme for the Strength of the Recommendations

Guide for Types of Recommendations

Type of Recommendation	Definition
Evidence based	There was sufficient evidence from published studies to inform a recommendation to guide clinical practice.
Formal consensus	The available evidence was deemed insufficient to inform a recommendation to guide clinical practice. Therefore, the Expert Panel used a formal consensus process to reach this recommendation, which is considered the best current guidance for practice. The Panel may choose to provide a rating for the strength of the recommendation (i.e., "strong," "moderate," or "weak"). The results of the formal consensus process are summarized in the guideline and reported in the Data Supplement (see the "Availability of Companion Documents" field).
Informal Consensus	The available evidence was deemed insufficient to inform a recommendation to guide clinical practice. The recommendation is considered the best current guidance for practice, based on informal consensus of the Expert Panel. The Panel agreed that a formal consensus process was not necessary for reasons described in the literature review and discussion. The Panel may choose to provide a rating for the strength of the recommendation (i.e., "strong," "moderate," or "weak").
No recommendation	There is insufficient evidence, confidence, or agreement to provide a recommendation to guide clinical practice at this time. The Panel deemed the available evidence as insufficient and concluded it was unlikely that a formal consensus process would achieve the level of agreement needed for a recommendation.

Guide for Strength of Recommendations

Rating for Strength of Recommendation	Definition
Strong	There is high confidence that the recommendation reflects best practice. This is based on (1) strong evidence for a true net effect (e.g., benefits exceed harms); (2) consistent results, with no or minor exceptions; (3) minor or no concerns about study quality; and/or (4) the extent of panelists' agreement. Other compelling considerations (discussed in the guideline's literature review and analyses) may also warrant a strong recommendation.
Moderate	There is moderate confidence that the recommendation reflects best practice. This is based on (1) good evidence for a true net effect (e.g., benefits exceed harms); (2) consistent results, with minor and/or few exceptions; (3) minor and/or few concerns about study quality; and/or (4) the extent of panelists' agreement. Other compelling considerations (discussed in the guideline's literature review and analyses) may also warrant a moderate recommendation.
Weak	There is some confidence that the recommendation offers the best current guidance for practice. This is based on (1) limited evidence for a true net effect (e.g., benefits exceed harms); (2) consistent results, but with important exceptions; (3) concerns about study quality; and/or (4) the extent of panelists' agreement. Other considerations (discussed in the guideline's literature review and analyses) may also warrant a weak recommendation.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

The guideline was circulated for external review and submitted to *Journal of Clinical Oncology* for editorial review and consideration for publication. All American Society of Clinical Oncology (ASCO) guidelines are ultimately reviewed and approved by the Expert Panel and the ASCO Clinical Practice Guideline Committee before publication.

External Review and Open Comment

Draft recommendations were released to the public for open comment from April 6 to April 20, 2016. A total of 71% to 100% of the respondents either agreed or agreed with slight modifications to the recommendations, whereas 14% to 29% of respondents disagreed. Comments received were reviewed by the Expert Panel and integrated into the final manuscript before approval by the Clinical Practice Guideline Committee.

The Clinical Practice Guideline Committee approved this guideline on June 9, 2016.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

This guideline serves to provide direction in a rapidly evolving field of urologic oncology. Within the limitations of the available literature, the aforementioned recommendations are proposed to inform and improve the current care of patients with small renal masses (SRMs).

Refer to the "Literature review and analysis" and "Clinical interpretation" sections of the original guideline document for a detailed discussion of the potential benefits and harms of each recommendation.

Potential Harms

- A recent systematic review showed a low rate of Clavien ≤ 2 complications was reported after renal tumor biopsy (RTB).
- Partial nephrectomy (PN) is associated with a higher complication rate than radical nephrectomy.
- PN is associated with an excellent cancer-specific survival rate, but carries a certain potential for treatment-related complications, which is greatest among the surgical treatment options for small renal masses (SRMs).
- In addition to medical comorbidities, renal mass location and size seem to be associated with complication rates after ablation. The benefits and risks of ablation should be carefully weighed for centrally located masses or those in close proximity to structures such as ureters, ureteropelvic junction, small or large bowel, or nerves.
- Perioperative outcomes, such as length of hospital stay, estimated blood loss, and open surgical conversion, favor thermal ablation relative to surgical options. Meta-analysis of percutaneous and surgical (open or laparoscopic) ablation strategies reveals a lower major complication rate for percutaneous ablation.
- The most significant drawback of radical nephrectomy is the detrimental impact on kidney function and the risk of chronic kidney disease (CKD) after treatment.

Refer to the "Literature review and analysis" and "Clinical interpretation" sections of the original guideline document for a detailed discussion of the potential benefits and harms of each recommendation.

Qualifying Statements

Qualifying Statements

Qualifying Statements

- The clinical practice guidelines and other guidance published herein are provided by American Society of Clinical Oncology (ASCO) to assist providers in clinical decision making. The information herein should not be relied on as being complete or accurate, nor should it be considered as inclusive of all proper treatments or methods of care or as a statement of the standard of care. With the rapid development of scientific knowledge, new evidence may emerge between the time information is developed and when it is published or read. The information is not continually updated and may not reflect the most recent evidence. The information addresses only the topics specifically identified therein and is not applicable to other interventions, diseases, or stages of diseases. This information does not mandate any particular course of medical care. Furthermore, the information is not intended to substitute for the independent professional judgment of the treating provider, because the information does not account for individual variation among patients. Recommendations reflect high, moderate, or low confidence that the recommendation reflects the net effect of a given course of action. The use of such words as "must," "must not," "should," and "should not" indicates that a course of action is recommended or not recommended for either most or many patients, but there is latitude for the treating physician to select other courses of action in individual cases. In all cases, the selected course of action should be considered by the treating provider in the context of treating the individual patient. Use of the information is voluntary. ASCO provides this information on an as is basis and makes no warranty, express or implied, regarding the information. ASCO specifically disclaims any warranties of merchantability or fitness for a particular use or purpose. ASCO assumes no responsibility for any injury or damage to persons or property arising out of or related to any use of this information, or for any errors or omissions.
- See the "Health Disparities," "Multiple Chronic Conditions" and "Limitations of the Literature and Future Directions" sections in the original guideline document for additional qualifying information.
- See the original guideline document for qualifying statements related to each recommendation.

Implementation of the Guideline

Description of Implementation Strategy

Guideline Implementation

American Society of Clinical Oncology (ASCO) guidelines are developed for implementation across health settings. Barriers to implementation include the need to increase awareness of guideline recommendations among front-line practitioners and survivors of cancer and caregivers, as well as to provide adequate services in the face of limited resources. The guideline Bottom Line Box was designed to facilitate implementation of recommendations. This guideline will be distributed widely through the ASCO Practice Guideline Implementation Network. ASCO guidelines are posted on the ASCO Web site and most often published in *Journal of Clinical Oncology* and *Journal of Oncology Practice*.

For additional information on the ASCO implementation strategy, please see the [ASCO Web site](#) .

Implementation Tools

Clinical Algorithm

Patient Resources

Quick Reference Guides/Physician Guides

Slide Presentation

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Finelli A, Ismaila N, Bro B, Durack J, Eggener S, Evans A, Gill I, Graham D, Huang W, Jewett MA, Latcha S, Lowrance W, Rosner M, Shayegan B, Thompson RH, Uzzo R, Russo P. Management of small renal masses: American Society of Clinical Oncology clinical practice guideline. J Clin Oncol. 2017 Feb 20;35(6):668-80. [154 references] [PubMed](#)

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2017 Feb 20

Guideline Developer(s)

American Society of Clinical Oncology - Medical Specialty Society

Source(s) of Funding

American Society of Clinical Oncology (ASCO)

Guideline Committee

Management of Small Renal Masses Guideline Expert Panel

Composition of Group That Authored the Guideline

Expert Panel Members: Antonio Finelli, MD (*Co-chair*), Princess Margaret Cancer Center, Toronto, ON, Canada; Paul Russo, MD (*Co-chair*), Memorial Sloan Kettering Cancer Center, New York, NY; Michael A.S. Jewett, MD, Princess Margaret Cancer Center, Toronto, ON, Canada; Inderbir Gill, MD, University of Southern California, Los Angeles, CA; Bobby Shayegan, MD, St Joseph Hospital, Hamilton, ON, Canada; Scott Eggener, MD, University of Chicago, Chicago, IL; William Lowrance, MD, University of Utah, Huntsman Cancer Institute, Salt Lake City, UT; R. Houston Thompson, MD, Mayo Clinic, Rochester, MN; Robert Uzzo, MD, Fox Chase Cancer Center, Philadelphia, PA; William Huang, MD, New York University Langone Medical Center, New York, NY; Mitchell Rosner, MD, University of Virginia School of Medicine, Charlottesville, VA; Sheron Latcha, MD, Memorial Sloan-Kettering Cancer Center, New York, NY; Jeremy Durack, MD, Memorial Sloan-Kettering Cancer Center, New York, NY; Andrew Evans, MD, University Health Network, Toronto, ON, Canada; David Graham, MD

(Practice Guideline Implementation Network [PGIN] representative), Levine Cancer Institute, Charlotte, NC; Bill Bro, patient representative, Kidney Cancer Association, Chicago, IL; Nofisat Ismaila, MD, American Society of Clinical Oncology (ASCO) staff

Financial Disclosures/Conflicts of Interest

Guideline and Conflicts of Interest

The Expert Panel was assembled in accordance with the American Society of Clinical Oncology's (ASCO's) Conflict of Interest Policy Implementation for Clinical Practice Guidelines (Policy, found at www.asco.org/rwc). All members of the Expert Panel completed ASCO's disclosure form, which requires disclosure of financial and other interests, including relationships with commercial entities that are reasonably likely to experience direct regulatory or commercial impact as a result of promulgation of the guideline. Categories for disclosure include employment; leadership; stock or other ownership; honoraria; consulting or advisory role; speaker's bureau; research funding; patents, royalties, other intellectual property; expert testimony; travel, accommodations, expenses; and other relationships. In accordance with the Policy, the majority of the members of the Expert Panel did not disclose any relationships that constituted a conflict under the Policy.

Authors' Disclosures of Potential Conflicts of Interest

The following represents disclosure information provided by authors of the guideline. All relationships are considered compensated. Relationships are self-held unless noted. I = Immediate Family Member, Inst = My Institution. Relationships may not relate to the subject matter of this manuscript. For more information about ASCO's conflict of interest policy, please refer to www.asco.org/rwc or jco.ascopubs.org/site/ifc .

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Consulting or Advisory Role: Amgen, Janssen Oncology, Astellas Pharma

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No relationship to disclose

Bill Bro

Employment: Kidney Cancer Association

Jeremy Durack

Stock or Other Ownership: Adient Medical

Consulting or Advisory Role: Adient Medical

Patents, Royalties, Other Intellectual Property: Patent disclosures, provisionals submitted for instrument to analyze biopsy specimens (unrelated to the small renal masses topic); patent holder for device related to x-ray imaging data collection (unrelated to small renal masses topic)—July 2008.

Other Relationship: Society of Interventional Radiology Foundation

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Consulting or Advisory Role: Janssen Pharmaceuticals, MDxHealth, nxthera, Profound

Speakers' Bureau: Janssen Pharmaceuticals, MDxHealth

Research Funding: Myriad Genetics (Inst)

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Consulting or Advisory Role: GE, Omnyx Digital Pathology

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Employment: Medscape

Leadership: Medscape

Speakers' Bureau: Biopeps

William Huang

Research Funding: Photocure

Travel, Accommodations, Expenses: Photocur

Michael A.S. Jewett

Employment: Impact Genetics (I)

Leadership: Impact Genetics (I)

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Honoraria: Pfizer, Myriad Genetics

Consulting or Advisory Role: Theralase Technologies

Research Funding: Olympus Medical Systems (Inst)

Patents, Royalties, Other Intellectual Property: Patent application filed for a new RFA device

Sheron Latcha

No relationship to disclose

William Lowrance

Consulting or Advisory Role: MDxHealth, Myriad Genetics

Research Funding: Myriad Genetics (Inst), Argos Therapeutics (Inst), GenomeDx (Inst)

Travel, Accommodations, Expenses: MDxHealth

Mitchell Rosner

Honoraria: Baxter

Consulting or Advisory Role: Johnson & Johnson, Novartis, Otsuka, AbbVie, Baxter

Research Funding: Otsuka, Kadmon

Travel, Accommodations, Expenses: Novartis, Baxter

Bobby Shayegan

No relationship to disclose

R. Houston Thompson

Patents, Royalties, Other Intellectual Property: Patent for B7-H1 and survivin as prognostic markers in renal cell carcinoma

Robert Uzzo

Honoraria: Johnson & Johnson

Consulting or Advisory Role: Myriad Genetics

Speakers' Bureau: Janssen Oncology

Paul Russo

No relationship to disclose

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the [Journal of Clinical Oncology Web site](#) .

Availability of Companion Documents

The following are available:

- Management of small renal masses: American Society of Clinical Oncology clinical practice guideline. Methodology supplement. Alexandria

(VA): American Society of Clinical Oncology (ASCO); 2017. 11 p. Available from the [Journal of Clinical Oncology Web site](#)

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- Management of small renal masses: American Society of Clinical Oncology clinical practice guideline. Data supplements 1-3. Alexandria (VA): American Society of Clinical Oncology (ASCO); 2017. 38 p. Available from the [Journal of Clinical Oncology Web site](#)
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- Management of small renal masses: American Society of Clinical Oncology clinical practice guideline. Slide set. Alexandria (VA): American Society of Clinical Oncology; 2017. 16 p. Available in [PDF](#) and [PowerPoint](#) from the American Society of Clinical Oncology (ASCO) Web site.
- Management of small renal masses: American Society of Clinical Oncology clinical practice guideline. Summary of recommendations table. Alexandria (VA): American Society of Clinical Oncology; 2017. 2 p. Available from the [ASCO Web site](#) .
- Finelli A, Ismaila N, Russo P. Management of small renal masses: American Society of Clinical Oncology clinical practice guideline summary. J Oncol Pract. 2017 Apr;13(4):276-9. Available from the [Journal of Oncology Practice Web site](#) .

Patient Resources

A patient's guide to kidney cancer is available from the [Cancer.Net Web site](#) .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

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